

## CLAIMS

1. An antimicrobial composition comprising silver and at least one compound which interacts with a microbial cell wall to inhibit microbial silver resistance.
- 5 2. An antimicrobial composition according to claim 1, comprising at least two of said compounds which are inhibitors of microbial silver resistance.
3. An antimicrobial composition according to claim 1 or 2, wherein the silver  
10 comprises metallic silver.
4. An antimicrobial composition according to any preceding claim, wherein the silver is applied to a solid support material.
- 15 5. An antimicrobial composition according to any preceding claim, wherein the one or more resistance inhibitors are selected from the group consisting of fatty acids, fatty acid esters, fatty alcohols, surfactants, ionophores, enzymes, steroids, essential oils, and mixtures thereof.
- 20 6. An antimicrobial composition according to any of claims 1 to 4, wherein the one or more resistance inhibitors are selected from the group consisting of monensin, salinomycin, Lasalocid, Phospholipase A2, Triacylglycerol, papain, Calcium thioglycolate, sodium hyaluronate, Azone, Decanol, Octanol, Butyl acetate; Glycerol monolaurate; Octyl acetate, Capric acid, Lauric acid, Hexanoic  
25 acid, Vaccenic acid, Pelargonic acid, fusaric acid, tocopherol and derivatives thereof, retinoids, resveratrol, salicylic acid, dichloroionictonic acid, polyunsaturated fatty acids, green tea extracts, ellagic acid, curcumin, Sorbic acid, Phenoxyethanol, phenethylalcohol, Benzethanium chloride, Zinc Gallate, Polyhexmethylen Biguanide, bisabolo/aloevera, creatine, creatine ascorbate,  
30 phosphatidylcholine, phosphatidylethanolamine, phosphatidylserine, spingomyelin and saponin.

7. An antimicrobial composition according to any preceding claim, wherein the composition comprises from about 0.01wt.% to about 5wt.% of silver, based on the dry weight of the composition.
- 5 8. An antimicrobial composition according to any preceding claim, wherein the composition comprises from about 0.01wt.% to about 5wt.% of the one or more resistance inhibiting compounds, based on the dry weight of the composition.
9. An antimicrobial composition according to any preceding claim, comprising  
10 a solid substrate material incorporating the silver and the one or more resistance inhibiting compounds.
10. An antimicrobial composition according to claim 9, wherein the substrate is a woven fabric, a knitted fabric, a nonwoven fabric, or a freeze-dried or solvent-  
15 dried sponge.
11. An antimicrobial composition according to claim 9, wherein the substrate comprises charcoal.
- 20 12. An antimicrobial composition according to claim 9, wherein the substrate comprises a material selected from the group consisting of oxidized regenerated cellulose, collagen, chitosan, alginates, and mixtures thereof
13. An antimicrobial composition according to any preceding claim, which is  
25 sterile and packaged in a microorganism-impermeable container.
14. A wound dressing comprising an antimicrobial composition according to any one of claims 1 to 13.
- 30 15. A wound dressing according to claim 14, which is sterile and packaged in a microorganism-impermeable container.